

# ANESTHESIOLOGY

## Volume 3

### INDEX TO SUBJECTS

Items having boldface figures indicate titled subjects of articles

Abdomino-perineal resection of rectum, nupercaine spinal anesthesia, **437**  
Abscess, around respiratory passages, relation to anesthesia, 195  
lung, cause, 198  
Acacia, use in shock, 624  
A. C. E. mixture, history, 288  
Acetone, early use, 12  
Acetylcholine, role in bronchial spasm, 136  
Acidosis, during anesthesia, **429**  
Adrenal cortical extract, 69  
use in shock, 625  
Adrenalinemia, 304  
Aeroembolism (see air embolism)  
Aero-otitis media, treatment, 270  
Aeronautics, ill effects, treatment, 267  
Age, barbiturate overdose, prognosis, 40  
Air embolism, prevention, 266  
Airway, importance in anesthesia, 83  
introduction of, 692  
obstructions, relation to anesthesia, 195  
Alcohol, benzyl, local anesthetic characteristics, 674  
ethyl, intraspinally, 668  
intravenously, 655  
Alkalosis, during fever therapy, 126  
Allergy, relation to bronchial obstruction, 201  
Altitude, effect on flyers, 267  
Alypin hydrochloride, local anesthetic characteristics, 674  
American Medical Association, first meeting, 15  
Amino oxidase, action on epinephrine, 49  
Ammonium chloride solution, perineural infiltration, 666  
Ammonium sulfate, intraspinally, 670  
Amylcaine hydrochloride, local anesthetic characteristics, 674  
Anatomy, basis for local anesthesia, 540  
basis for splanchnic block, 393  
respiratory tract, 61  
relation to anesthesia, 195  
Anemia, spinal anesthesia in presence of, 630  
Anesthesia, acid base balance during, 369  
acidosis during, **429**  
after poison gases, 551  
airway during, 83, 195  
analogy to golf, 683  
atelectasis following, 137  
basal, for plastic surgery, 512  
with pentothal sodium, 458  
block, abdominal wall, 394  
early use, 20  
for plastic surgery, 512  
maxillary, 282  
paravertebral, 394  
splanchnic, **392**  
trigeminal nerve, 282  
blood studies during, 193  
circulation during, neurogenic control, 491  
colonic, 171  
combined, for laryngectomy, 197  
continuous spinal, **52**, 214, **522**, 631  
advantages, 59  
concentrations of procaine, 160  
disadvantages, 59  
preparation of solution, 342  
dental, monocaine, 514  
development (see anesthesia, history)  
endotracheal (see anesthesia intratracheal)  
ether-oil, 171  
for abdomino-perineal resection, 437  
for burned patients, 513  
for gastric surgery, splanchnic block, 392  
for plastic surgery, **507**  
for pneumonectomy, **314**  
for soldiers, 252  
for tonsillectomy, dangers, 197  
general, curare during, **418**  
effect on small blood vessels, 146  
history, **11**, **171**, **282**, **650**  
Morton's birthplace, 213  
in desert warfare, 247, 379  
in military base hospital, 379  
in navy, 459  
induction, 508  
infiltration, history, 21  
inorganic gases in, **560**  
insulin shock during, 660  
intramedullary, 312  
intraneural, 282  
intratracheal, 557  
atelectasis following, 79, 138  
care after, 510  
complications, effect of intubation, 135  
early use, 315  
ether vaporizer for, 379

# ANESTHESIOLOGY

## Volume 3

### INDEX TO SUBJECTS

Items having boldface figures indicate titled subjects of articles

Abdomino-perineal resection of rectum, nupercaine spinal anesthesia, **437**  
Abscess, around respiratory passages, relation to anesthesia, 195  
lung, cause, 198  
Acacia, use in shock, 624  
A. C. E. mixture, history, 288  
Acetone, early use, 12  
Acetylcholine, role in bronchial spasm, 136  
Acidosis, during anesthesia, **429**  
Adrenal cortical extract, 69  
use in shock, 625  
Adrenalinemia, 304  
Aeroembolism (see air embolism)  
Aero-otitis media, treatment, 270  
Aeronautics, ill effects, treatment, 267  
Age, barbiturate overdose, prognosis, 40  
Air embolism, prevention, 266  
Airway, importance in anesthesia, 83  
introduction of, 692  
obstructions, relation to anesthesia, 195  
Alcohol, benzyl, local anesthetic characteristics, 674  
ethyl, intraspinally, 668  
intravenously, 655  
Alkalosis, during fever therapy, 126  
Allergy, relation to bronchial obstruction, 201  
Altitude, effect on flyers, 267  
Alypin hydrochloride, local anesthetic characteristics, 674  
American Medical Association, first meeting, 15  
Amino oxidase, action on epinephrine, 49  
Ammonium chloride solution, perineural infiltration, 666  
Ammonium sulfate, intraspinally, 670  
Amylcaine hydrochloride, local anesthetic characteristics, 674  
Anatomy, basis for local anesthesia, 540  
basis for splanchnic block, 393  
respiratory tract, 61  
relation to anesthesia, 195  
Anemia, spinal anesthesia in presence of, 630  
Anesthesia, acid base balance during, 369  
acidosis during, **429**  
after poison gases, 551  
airway during, 83, 195  
analogy to golf, 683  
atelectasis following, 137  
basal, for plastic surgery, 512  
with pentothal sodium, 458  
block, abdominal wall, 394  
early use, 20  
for plastic surgery, 512  
maxillary, 282  
paravertebral, 394  
splanchnic, **392**  
trigeminal nerve, 282  
blood studies during, 193  
circulation during, neurogenic control, 491  
colonic, 171  
combined, for laryngectomy, 197  
continuous spinal, **52**, 214, **522**, 631  
advantages, 59  
concentrations of procaine, 160  
disadvantages, 59  
preparation of solution, 342  
dental, monocaine, 514  
development (see anesthesia, history)  
endotracheal (see anesthesia intratracheal)  
ether-oil, 171  
for abdomino-perineal resection, 437  
for burned patients, 513  
for gastric surgery, splanchnic block, 392  
for plastic surgery, **507**  
for pneumonectomy, **314**  
for soldiers, 252  
for tonsillectomy, dangers, 197  
general, curare during, **418**  
effect on small blood vessels, 146  
history, **11**, **171**, **282**, **650**  
Morton's birthplace, 213  
in desert warfare, 247, 379  
in military base hospital, 379  
in navy, 459  
induction, 508  
infiltration, history, 21  
inorganic gases in, **560**  
insulin shock during, 660  
intramedullary, 312  
intraneural, 282  
intratracheal, 557  
atelectasis following, 79, 138  
care after, 510  
complications, effect of intubation, 135  
early use, 315  
ether vaporizer for, 379

for chest operations, 319  
for plastic surgery, 507  
for upper abdominal operations, 528  
in wartime, 255  
surface anesthesia before, 342  
technic, 199  
intravenous,  
    advantages, 658  
    for military use, 257, 381, 657  
    for plastic surgery, 512  
    history, 650  
local, 640  
    for chest surgery, 319  
    for military use, 258  
    therapeutic use, 664  
methods, in base hospital, 254, 390  
obstetric,  
    early use, 287  
    oil-ether, 174  
oil-ether, 171  
paraneural, 282  
reactivation after, effect of shock, 619  
records, army, 253  
rectal, 171  
    history, 284  
regional, 540  
    early uses, 282  
    intravenously, 654  
relation of respiratory passages to, 195  
serial spinal (see anesthesia, continuous spinal)  
service, for small hospitals, 553  
spinal, 630  
    acidosis, 429  
    atelectasis following, 137, 201  
    circulation during, 421  
    collapse during, 159  
    combined epinephrine-ephedrine during, 49  
    complication, 444  
    continuous, 52, 160, 214, 342, 522, 631  
    contraindications, 544  
    deaths from, 276  
    dosages, 636  
    first used, 282  
    for abdominal perineal resection, 437  
    for military surgery, 258  
    for plastic surgery, 511  
    for thoracic surgery, 272  
    history, 21  
    oxygen during, 276  
    respiration during, 460  
    shock following, 177  
    Sise's method, 631  
    strychnine after, 276  
    supplements, 341  
        with cyclopropane, 525  
    technics, 630  
    therapeutic uses, 671  
    tolerance to procaine, 159  
    with magnesium salts, 326  
    with monocaine formate, 514  
splanchnic, for gastric surgery, 392  
subarachnoid (see anesthesia, spinal)  
surface,  
    before intubation, 342  
    wartime use, 258  
surgeon's comment, 455  
via bone marrow route, 312  
wartime, 247  
    pentothal sodium, 657  
    personnel, 388  
    risk, 382  
    spinal, 258  
    teaching, 433  
with magnesium salts, 326  
Anesthésie à la reine, 12  
Anesthetics,  
    action on brain, 207  
    choice for pneumonectomy, 318  
    concentrations in blood, 373  
    general, action on blood vessels, 146  
local, 295  
    bacteriocidal action, 516  
    characteristics, 673  
    intravenously, 654  
    pharmacologic effects, 398  
    role in atelectasis, 137  
Anociassocation, 282  
Anoxia,  
    danger during spinal anesthesia, 168  
    during anesthesia, 79  
    during cyclopropane anesthesia, 304  
    tissue, role in shock, 625  
Apnea, effect of belladonna alkaloids, 72  
Apomorphine, use in overdose of belladonna alkaloids, 77  
Apothesine hydrochloride, local anesthetic characteristics, 674  
Apparatus,  
    automatic recording of blood pressure, 141  
    cylinders for gases, 562  
    ether dripper, 214  
    Flagg's can (modified), 380  
    for animal anesthesia, 147  
    for continuous spinal anesthesia, 52, 631, 639  
    for intravenous anesthesia, 381  
    for military anesthesia, 379  
    for oxygen estimation, 566  
    for regional anesthesia, 282, 381  
    for spinal anesthesia, Australian army issue, 381, 631  
    for sternal puncture, 308  
gas anesthesia, Australian army issue, 380  
gas mask for warfare, 550  
Goldman's ring, 510  
introducer for malleable needle, 457, 458  
laryngoscope,  
    Australian army issue, 380  
    curved, 580  
Leech pharyngeal bulb gasway, 557  
mask with stomach tube, 460  
Matas Smyth pump, 315  
mouth prop, 94

- negative pressure chamber, 315
- resuscitation outfit, 382
- Shipway's, 380
- vaporiser for ether, 379
- wartime anaesthesia, suggestions, 390
- Arachnoid villi, role in spinal anaesthesia, 162
- Artificial respiration, role in shock, 624
- Asthma, during anaesthesia, relief, 75
- Atelectasis, 131, 200
  - during anaesthesia, 79
- Atropa belladonna, 71
- Atropine sulfate,
  - action in laryngospasms, 74
  - action on central nervous system, 71
  - dangers, 77
  - drying effect, 72
  - effect on humans, 24
  - effect on respiration, 72
  - effect on vagus nerve, 74
  - in barbiturate overdose, 44
  - intravenously, 76
  - prevention of bronchial spasm, 138
  - relation to atelectasis, 137
  - sedative effect, 73
  - use in anaesthesia, 71
- Australian Army Medical Corps, 247
- Avertin (see tribromethyl alcohol)
- Backache, choice of anaesthetic, 544
- Ballistocardiograph, 422
- Bandages, role in postoperative complications, 201
- Barbital,
  - discovery, 655
  - effect on blood flow, 618
- Barbiturates,
  - acidosis, 429
  - before pneumonectomy, 318
  - effect of sulfonamides on action of, 46
  - history, 655
  - in overdose of belladonna alkaloids, 77
  - in overdose of picrotoxin, 45
  - laryngospasm caused by, relief, 74
  - overdose, treatment, 37, 44
  - role in atelectasis, 137
- Barium hydroxide, 1
- Basal narcosis, for soldiers, 252
- Beer, intravenously, 650
- Belladonna alkaloids, role in anaesthesia, 71
- Bends, treatment, 267
- Benzine, early use for anaesthesia, 13
- Biniiodide of mercury, 510
- Bleeding,
  - effect of carbon dioxide retention, 511
  - importance in skin graft, 507
  - prolonged, 616
- Blindness, result of oxygen lack, 280
- Blood,
  - acid-base balance, 369
  - anaesthetic concentration, 373
  - carbon dioxide content, 369
  - effect on anaesthesia, 369
- compatibility, early studies, 653
- effect of fluid therapy, 65
- effect of picrotoxin, 41
- erythrocyte volume, during anaesthesia, 373
- flow, 616
- injection into bone marrow, 307
- inspiration during anaesthesia, 197
- lamb's, transfusion of, 650
- oxygen, estimation, 566
- plasma,
  - after burns, 191, 513
  - injection into bone marrow, 307
- pH, during anaesthesia, 371
- preparation, 332
- preservation, 332
  - specific gravity, 179, 181
  - transfusion, 69, 191, 513
  - value in shock, 189, 624
  - volume, during shock, 618
- preservation, 332
- pressure,
  - after barbiturate overdose, 44
  - automatic recording, 141
  - determination of vascular system changes, 147
- during continuous spinal anaesthesia, 50, 523
- during spinal anaesthesia, 421, 518, 642
  - effect of epinephrine-ephedrine, 49
  - effect of carbon dioxide excess, 6
  - effect of cyclopropane anaesthesia, 374
  - effect of ether, 492, 498
  - effect of magnesium salts, 325
  - effect of monocaine, 403
  - effect of operation, 427
  - effect of pituitary extract-ephedrine, 274
  - in shock, 611
  - pyruvate, 661
  - serum bicarbonate during anaesthesia, 373
  - sludge formation, 623
  - specific gravity, 67, 179, 181
  - stored, 331
  - studies,
    - during cyclopropane anaesthesia, 370
    - during fever therapy, 125
  - substitutes, 332
  - transfusion,
    - during operation, 318
    - first used, 650
    - recent advances, 331
    - use in shock, 189, 624
  - vessels, effect of anaesthetics, 146, 493, 498
  - volume, effect of ether, 494, 502
  - Bone marrow, route for injecting fluids, 307
  - Brain,
    - effect of ether, 494
    - effect of oxygen want, 280
    - oxygen supply, 206
  - Breathing (see respiration)
  - Bronchitis, in soldiers, 254
  - Bronchography, 61

Bronchoscopic aspiration (see tracheobronchial aspiration)  
 Bronchoscopy, after tonsillectomy, 197  
 Bronchospasm, 201  
     effect of atropine, 75  
     role in atelectasis, 136  
 Bronchus, constriction of, effect on heart, 74  
 Burns,  
     choice of anesthesia for, 713  
     pentothal anesthesia for, 657  
     shock, after, 619  
         blood studies, 190  
     treatment, 191  
 Butyn sulfate,  
     comparison with monocaine, 298  
     local anesthetic characteristics, 674

Caffein sodium benzoate, treatment of spinal headache, 442  
 Caisson disease, treatment, 267  
 Calcium chloride, use in magnesium salts overdose, 328  
 Calcium hydroxide, 1  
 Calcium salts, anticonvulsant action, 678  
 Canisters, for soda lime, 689  
 Capillaries,  
     action of anesthetics, 146  
     effect of hemorrhage, 616  
     effect of spinal anesthesia, 165  
 Carbohydrates, postoperatively, 252  
 Carbon dioxide,  
     after anesthesia, 253  
     blood, during cyclopropane anesthesia, 373  
     depletion, 317  
     during induction of anesthesia, 254  
         fatality, 384  
     during resuscitation, 83  
     in anesthesiology, 573  
     percentage in exhaled air, 4  
     percentage in exhausted absorbers, 7  
     postoperatively, 202, 253  
         in desert warfare, 387  
     preservative for blood, 332  
     prevention of air embolism, 266  
     retention, 430  
         effect on bleeding, 511  
     use during fever therapy, 125, 128  
 Carbon dioxide absorbers, 1  
     Australian army issue, 380  
     ether dripper for, 214  
     handling of, 688  
 Carbon dioxide absorption, 1  
     in military anesthesia, 256  
 Carbon monoxide, in warfare, 547  
 Carbon oxychloride (see phosgene)  
 Cardiovascular system, effect of magnesium salts, 325  
 Carnations, role in development of ethylene, 289  
 Carotid body mechanism, effect of belladonna alkaloids, 72  
 Carron oil, vehicle for ether, 286

Cellular respiration, 204  
 Cervical arachnoiditis, 444  
 Chemistry, local anesthetics, 679  
 Children,  
     intramedullary fluid administration, 313  
     local anesthesia for, 543, 544  
 Chloral hydrate, intravenously, first used, 653  
 Chloralozane, effect on blood flow, 617  
 Chlorazol fast pink, 624  
 Chloride of carbon, early use, 12  
 Chloroacetophenone, 547  
 Chloroform,  
     early use, 13  
     effect on heart, 534  
     in desert warfare anesthesia, 255  
     intravenously, 655  
 Circulation,  
     during continuous spinal anesthesia, 523  
     effect of drugs, 24  
     effect of irritation, 74, 176  
     effect of monocaine hydrochloride, 403  
     effect of spinal anesthesia, 421  
     neurogenic control, 491  
     time, absorption of fluids, 312  
 Clark window, 146  
 Cocaine,  
     history, 19  
     infiltration, 282  
     intraspinally, 21  
     local anesthetic characteristics, 674  
     nerve block, with, 282  
     surface application, 258  
 Cold, anesthetic properties, 283  
 Color, marking of cylinders, 564  
 Complications,  
     after continuous spinal anesthesia, 527  
     after poison gases, 549  
     after spinal anesthesia, 444, 520  
     during anesthesia, 79, 689  
     during spinal anesthesia, 519  
     postoperative, 17, 132, 200, 444, 520, 527  
         after tonsillectomy, 197  
         effect of intubation, 135  
         factors increasing, 136  
         in desert warfare, 254, 386  
 Controlled respiration, 317  
 Convulsions,  
     anesthetic, early report of, 17  
     effect of magnesium salts, 326  
     local anesthetic, 677  
     role of carbon dioxide, 431  
 Coriamyrtin, 43  
 Crocus metallorum, 650  
 Curare, use in general anesthesia, 418  
 Cylinders,  
     color markings, 564  
     for oxygen, 562  
 Cyclopropane, 557  
     acid-base balance during, 369  
     acidosis during, 429  
     action of epinephrine for hemostasis, 511  
     action on small blood vessels, 149

cardiac arrhythmias, 530  
 curare during, 419  
 effect on intestine, 303  
 for gastric surgery, 393  
 for military use, 255  
 for plastic surgery, 511  
 for pneumonectomy, 318  
 history, 290  
 insulin shock during, 660  
 role in atelectasis, 137  
 supplement to spinal anesthesia, 525  
 with epinephrine,  
     action on digitalized heart, 644  
     tachycardia, prevention, 259

Cyclopropyl ethyl ether (see ether, cypreth)  
 Cyclopropyl methyl ether (see ether, cyprome)  
 Cypreth ether, 414  
 Cyprome ether, 293

Deadly nightshade, 71  
 Death, during anesthesia, 276, 384  
 Decicaine (see pontocaine)  
 Decompression, after deep sea diving, 268  
 Decontamination, after poison gases, 549  
 Dehydration,  
     shock, 182, 187  
     treatment, 69, 187  
 Desert, anesthesia in, 247, 379  
 Dextrose, blood preservative, 332  
 Diabetes,  
     choice of anesthetic, 543  
     insulin shock, during anesthesia, 660  
     spinal anesthesia in presence of, 631  
 Dial, first used, 655  
 Dichlorethylsulphide (see mustard gas)  
 Diethyl-amino-methyl-benzo-dioxane (F883)  
     action on heart, 536  
 Digalin, 645  
 Digitalis, effect on heart, 644  
 Diothane hydrochloride, local anesthetic characteristics, 674  
 Diving, ill effects, treatment, 267  
 Divinyl oxide, 290  
 Drugs,  
     absorption from subarachnoid space, 162  
     anaesthetic, use in shock, 274  
     antianaleptic, 83  
     anticoagulant, first use, 652  
     belladonna alkaloids, 71  
     effects on human subjects, 24  
     first hypodermic use, 17  
     injection into bone marrow, 307  
     local anesthetic, convulsive potency, 677  
     stimulant, 83  
         in barbiturate overdose, 42  
         vasoconstrictor-local anesthetic, 514  
 Dust, factor in carbon dioxide absorbers, 5, 7

Eclampsia, effect of magnesium salts, 326  
 Edema,  
     impending, determination, 69  
     relation to anesthesia, 195

Embolism,  
     air, prevention, 266  
     during operation, 689  
     role in lung abscess, 198  
 Emphysema, subcutaneous, treatment, 266  
 Encephalography, headache after, treatment, 266

Ephedrine sulfate  
     after barbiturate overdose, 44  
     before spinal anesthesia, 439, 442, 633  
     combined with epinephrine, 49  
     combined with posterior pituitary extract, 274  
     during continuous spinal anesthesia, 524  
     during spinal anesthesia, 518  
     site of injection, 342

Epinephrine,  
     action during cyclopropane, 530  
     effect on digitalized heart, 644  
     hemostasis with, 511  
     tachycardia, prevention, 259  
     combined with ephedrine, 49  
     effect on action of ephedrine, 524  
     effect with local anesthetics, 404  
     mechanism of death from, 621  
     synergism with monocaine, 295, 407, 514  
     to control bleeding, 199, 511

Equipment (see apparatus)  
 Erythroxylin, 19  
 Eschatin (see suprarenal cortical extract)  
 Eserine, 49  
 Ether,  
     cypreth, 414  
     cyprome, 293  
     diethyl,  
         acidosis, 429  
         action on small blood vessels, 154  
         circulation during, 491  
         early uses, 11  
         effect on heart, 534  
             prevention of tachycardia, 259, 536, 645  
         for gastric surgery, 392  
         for military use, 254  
         for pneumonectomy, 319  
         in normal saline, rectally, 172  
         in oil,  
             bactericidal action, 174  
             colonic anesthesia, 171, 284  
             history, 286  
         intravenously, 655  
         open method, in desert warfare, 379  
         rate of evaporation from oil, 173  
         role in atelectasis, 137  
         role in bronchial irritation, 201  
         spray, 283  
         vapor, rectal administration, 171, 284  
         vaporiser, 379  
     ethylenated, 290

Etherington-Wilson technic, 272  
 Ethyl chloride,  
     induction, wartime anesthesia, 254  
     spray, 283

Ethyldichlorarsine, 547  
 Ethylened ether, 290  
 Ethylene,  
     action on small blood vessels, 152  
     blood studies during, 374  
     history, 288  
 Eunarcos, introduced, 657  
 Evipal, discovery, 657  
 Explosion, static electricity, 85

F883, action on cyclopropane-epinephrine  
     tachycardia, 536  
 Femur, injection of fluids into, 308  
 Fever,  
     effect on oxygen want, 123  
     therapy,  
         blood studies during, 125  
         oxygen during, 123  
 Fire extinguishers, gases from, 547  
 Flagg's can, 380  
 Flowers, effect of gases on, 289  
 Fluids,  
     injection into bone marrow, 307  
     intravenously,  
         after barbiturate overdose, 44  
         during operation, 274, 318  
         treatment of acidosis, 432  
     loss, in burned patients, 190, 619  
     output, 65  
     replacement,  
         in desert, 252  
         in shock, 624  
     therapy, 65  
         hematocrit-protein pattern, 184  
         utilization, 185  
 Foramen rotundum, nerve block at, 282  
 Foreign material, aspiration of, 134, 197

Gas,  
     bubbles, in blood stream, 267  
     mask, for wartime, 550  
     poisoning, anesthesia after, 551  
 Gases,  
     anesthetic, for military use, 255, 380  
     inert, 265  
     inorganic, 560  
     noxious, 546  
 Gastric contents, role in atelectasis, 138  
 Gastro-intestinal tract,  
     effect of drugs, 24  
     effect of novatropine, 75  
 Glucose,  
     normal, role in shock, 624  
     tolerance, during anesthesia, 661  
 Goldman's ring, 510  
 Golf, analogy to anesthesia, 683  
 Grounding, 95

Haldane resuscitator, 381  
 Hamilton manometer, 422  
 Head injuries, blood studies in, 193

Headache,  
     after encephalography, treatment, 266  
     after spinal anesthesia, 442, 520  
 Heart,  
     action of cyclopropane, 530  
     digitalized, action of cyclopropane, 644  
     disease, spinal anesthesia in presence of, 630  
     effect of cyclopropane, 259, 530, 644  
     effect of ether, 491  
     effect of irritation of respiratory tract, 74  
     effect of magnesium salts, 325  
     effect of stimulant drugs, 84  
     pain, control, 668

Heat,  
     loss, from open chest, 319  
     of neutralization, 1  
     use in shock therapy, 625

Hedonal, intravenously, 654

Helium,  
     in anesthesiology, 572  
     in air illness, 269

Hematocrit, 179, 180  
     during shock, 618  
     operation time determined by, 66  
     protein patterns, 184

Hemorrhage,  
     detection, 69  
     shock after, 69, 189, 623  
     spinal anesthesia in presence of, 630

Hemostasis, during cyclopropane anesthesia, 511

Heparin,  
     role in shock, 624  
     use in hematocrit determination, 180

Hiccup, effect of pentothal, 525

Histamine,  
     role in bronchial spasm, 136  
     role in shock, 622  
     shock from, counteraction, 274

Holocaine hydrochloride, local anesthetic characteristics, 674

Homatropine, 71

Horton intercoupler, arrangement of wires, 342

Howard Jones' solution, 438

Hydrochloric acid,  
     effect on respiratory passages, 138  
     local anesthetic characteristics, 676

Hyoscine (see scopolamine)

Hyoscyamine, use in anesthesia, 71

Hyperpnea, effect of exhaustion of carbon dioxide absorber, 6

Hyperpyrexia,  
     after pentobarbital, 215, 457  
     effect on oxygen want, 123

Hyperventilation,  
     after anesthesia, 252  
     effect on arrhythmias, 536

Hypoproteinemia, blood plasma for, 191

Hypotension, 611

Hypodermic injection, first use, 17

Infantile paralysis, dangers of tonsillectomy, 195

Inhalation therapy, record for, 579

Intestine,  
action of cyclopropane, 303  
appearance in shock, 619  
distention of, treatment, 265  
obstruction,  
dehydration, treatment, 182  
spinal anesthesia in presence of, 630  
stripping, shock from, 624

Intocostrin, 418

Intracaine, 319, 523  
local anesthetic characteristics, 674

Intratracheal tubes, 320  
prolonged use, 217  
stilets for, 342  
use in resuscitation, 276  
value of, 199

Introducer, for malleable needle, 457, 458

Iodine, idiosyncrasy, 61

Iodoform vapor, use for anesthesia, 13

Isobutyl amino ethyl para amino benzoate hydrochloride (see *monocaine*)

Keyes and McLelland solution, 438

Kidney,  
disease, spinal anesthesia in presence of, 630  
operations, spinal anesthesia for, 635

Knitting needles, stilets for intratracheal tube, 342

Lachrymator gases, 547

Larocaine hydrochloride,  
local anesthetic characteristics, 674  
topical use, 62

Laryngectomy, anesthesia for, 197

Laryngoscope,  
Australian army issue, 380  
curved, 580  
method of using, 199

Laryngospasm,  
effect of atropine, 74  
effect of ephrith ether, 416

Larynx, relation to anesthesia, 195

Leech pharyngeal bulb gasway, 557

Lipiodo-bronchography, 61

Lithium hydroxide, 1

Liver, disease, spinal anesthesia in presence of, 630

London Hospital mouth prop, 94

Lung,  
anatomy, 133  
effect of poison gases, 547

Macasol, effect on bone marrow, 312

Magnesium,  
carbon dioxide absorption with, 1  
ions, danger in fluid therapy, 188  
parenterally, 323

Magnesium sulfate,  
intravenously, 655  
with rectal ether, 287

Matas Smyth pump, 315

Merthiolate, plasma preservative, 333

Metabolism,  
during shock, 619  
effect of fever, 123  
relation to respiration, 204

Meteorism, role in pulmonary complications, 201

Methyl bromide, use in warfare, 549

Methyl-propyl carbinol urethane (see *hedonal*)

Metrazol, effect in barbiturate overdose, 42

Metycaine hydrochloride,  
for continuous spinal anesthesia, 523  
local anesthetic characteristics, 674

Military hospital, anesthesia in, 247, 379

Miller-Abbott tube, treatment of distention, 266

Monocaine formate, 514

Monocaine hydrochloride,  
local anesthetic characteristics, 674  
pharmacologic effects, 295, 398

Morphine paste, subcutaneous injection, 17

Morphine sulfate,  
danger before anesthesia, 198  
discovery, 17  
effect on carotid sinus, 74  
effect on human subjects, 24  
history, 17  
intravenously, 55  
relation to atelectasis, 136  
with scopolamine,  
after continuous spinal anesthesia, 525  
in obstetrics, 287  
intravenously, first use, 655

Mustard gas, 546

Nausea, control during spinal anesthesia, 642

Navy, anesthesia in, 459

Neck infections, value of atropine, 74

Needles,  
continuous spinal, 53, 526  
hollow, invention, 18  
spinal anesthesia,  
gold, 631  
with hole in bevel, 632  
sternal puncture, 308  
Tocantin's, 308

Neosynephrin,  
during continuous spinal anesthesia, 524  
during spinal anesthesia, 442, 642  
effect on central nervous system, 276

Nerves,  
after barbiturate overdose, 46  
splanchnic, 393

Nervous system,  
action of atropine, 71  
control of circulation, 491  
diseases, contraindication to spinal anesthesia, 630

effect of drugs, 24  
 effect of magnesium, 324  
 Neuritis, after barbiturate overdose, 46  
 Nitric ether, early use, 12  
 Nitrogen, 265  
 blood, 571  
     elimination of, 268  
     importance in distention, 265  
 narcotic action, 269  
 preparation, 570  
 use in anesthesia, 571  
 Nitrous fumes, in warfare, 547  
 Nitrous oxide,  
     action on small blood vessels, 151  
     for pneumonectomy, 318  
     supplement to spinal anesthesia, 525  
     use in desert warfare, 255  
     with pentothal anesthesia, 657  
 Nose, anatomy, 195  
 Novatropine, 71  
 Nupercaine,  
     local anesthetic characteristics, 674  
     spinal anesthesia, 272, 631  
         for abdominal perineal resection, 437  
     topical application, 62  
 Obesity,  
     effect of spinal anesthesia, 544  
     effect on air embolism, 269  
 Olive oil, with ether, 287  
 Operation, effect on blood pressure, 427  
 Opium, early studies, 17, 650  
 Ouabain, effect on cardiac response, 644  
 Oxidation, relation to respiration, 204  
 Oxygen,  
     administration during anesthesia, 168  
     arterial, during cyclopropane anesthesia, 373  
     blood, 564  
     during continuous spinal anesthesia, 524  
     during spinal anesthesia, 168, 518, 631, 642  
     effect on pulse, 123  
     high concentrations, value in shock, 625  
     in anesthesiology, 560  
     intrapharyngeally, during spinal anesthesia, 276  
     lack, effect on brain, 206, 280  
     metabolism, effect of drugs, 26  
     poisoning, 269  
     postoperatively, 321  
     preparation of, 560  
     subcutaneously, 548  
     therapy,  
         during fever therapy, 123  
         effect on tissue nitrogen, 265  
         in Australian army hospital, 381  
         in subcutaneous emphysema, 266  
     want, 123, 267  
     with pentothal anesthesia, 657  
 Pack, pharyngeal, 508  
 Pain,  
     during continuous spinal anesthesia, 525  
     influence on shock, 620  
     intractable, 663  
     role in pulmonary complications, 201  
 Paraldehyde, intravenously, 655  
 Paralysis, effect of thiamine, 46  
 Paraminobenzoic acid, recovery from spinal fluid, 526  
 Pentobarbital sodium,  
     early use, 657  
     effect on blood flow, 618  
     hyperpyrexia after, 215, 457  
 Pentothal sodium,  
     complication of, 528  
     effect on small blood vessels, 147  
     effect on hiccough, 525  
     first use, 657  
     for burned patients, 513  
     induction with, 508  
         intubation after, 509  
         insulin shock during, 660  
         into bone marrow, 312  
         preparation in bulk, 93  
         rectally, 458, 512, 691  
         use in wartime, 257, 512  
 Percaine, 258  
 Perineural space, significance in spinal anesthesia, 164  
 Peritoneum, area of, 192  
 Peritonitis, shock from, 191  
 Perivascular space, significance in spinal anesthesia, 165  
 Pernoston, 655  
 Pharynx, relation to anesthesia, 195  
 Phosgene, 546  
 Picrotoxin,  
     intracisternally, 45  
     secondary depression from, 41  
     site of action, 42  
     treatment of barbiturate overdose, 37  
 Pilocarpine, antidote to belladonna alkaloids, 77  
 Pitcher plant distillate, 664  
 Pitressin, 276  
     use in capillary atony, 188  
     with ephedrine, during spinal anesthesia, 642  
 Pituitary solution, use in barbiturate overdose, 44  
 Pituitrin, treatment of postanesthetic headache, 442  
 Placebo, effect on human subjects, 35  
 Plasma (see blood)  
 Plastic surgery, anesthesia for, 507  
 Pneumothorax, use of carbon dioxide for, 267  
 Pneumonectomy, anesthesia for, 314  
 Pontocaine,  
     for continuous spinal anesthesia, 523  
     glucose solution, 444, 631  
     local anesthetic characteristics, 674  
     ointment, for intratracheal tubes, 510  
     surface application, 63  
 Position, during injection of spinal anesthetic, 633

Posterior pituitary extract, with ephedrine, 274  
 Potassium hydroxide, carbon dioxide absorption, 1  
 Potassium ion, danger in fluid therapy, 188  
 role in shock, 622  
 Premedication, before bronchography, 62  
 before continuous spinal anesthesia, 54, 525  
 before pneumonectomy, 318  
 before spinal anesthesia, 273, 443  
 belladonna alkaloids, 72  
 choice, 36  
 effect on carbon dioxide capacity of blood, 370  
 effect on vocal cords, 74  
 for soldiers, 252  
 intravenously, 76  
 relation to atelectasis, 136  
 value of atropine, 72  
 Preoperative care, for smokers, 135  
 Procaine butyrate, local anesthetic characteristics, 674  
 Procaine hydrochloride, 258  
 comparison to monocaine, 296, 399, 514  
 intravenously, 654, 655  
 local anesthetic characteristics, 674  
 rate of disappearance from spinal fluid, 167  
 spinal anesthesia with, 52, 523, 631  
 tolerance for, 159  
 therapeutic use, 671  
 Propylene, 290  
 Prostigmine, antidote to curare, 419  
 Proteins, blood, 181, 189, 190  
 Prothrombin, of stored blood, 331  
 Psychology, applied to anesthesia, 283  
 Pulse, during carbon dioxide excess, 6  
 effect of fever, 123  
 effect of monocaine, 403  
 effect of oxygen, 123  
 Pyruvic acid, determination during anesthesia, 660  
 Quinine urea hydrochloride, local anesthetic characteristics, 674  
 Relaxation, effect of curare, 418  
 Renin, role in shock, 622  
 Respiration, 204  
 cellular, 204  
 controlled, 317  
 depressed, acidosis following, 429  
 during high spinal anesthesia, 642  
 effect of belladonna alkaloids, 72  
 effect of drugs, 24  
 effect of magnesium salts, 324  
 effect of monocaine, 403  
 effect of stimulant drugs, 83  
 failure, during spinal anesthesia, 341  
 obstruction, device to prevent, 94  
 physiology, 133  
 importance in pneumonectomy, 314  
 Respiratory tract, anatomy, 61  
 diseases, spinal anesthesia in presence of, 630  
 reflexes, action of belladonna alkaloids, 74  
 relation to anesthesia, 195  
 Resuscitation, value of intratracheal tube, 276  
 value of stimulant drugs, 83  
 Resuscitator, Australian army issue, 381  
 Saline solution, early use, 652  
 Saliva, inspiration during anesthesia, 198  
 Sand-storms, effect on respiratory sequelae, 386  
 Sandford-Magath hematocrit tube, 180  
 Sarracenia purpurea, solution, local infiltration, 664  
 Scopolamine, dangers, 77  
 drying effect, 72  
 effect on human subjects, 24  
 effect on respiration, 72  
 sedative effect, 73  
 use in anesthesia, 71  
 with morphine sulfate, after continuous spinal anesthesia, 525  
 first use, 655  
 in obstetrics, 287  
 Scopolia carniolica, 71  
 Shock, 176, 611  
 afferent impulse theory, 620  
 experimental, 623  
 from burns, 619  
 from dehydration, 182  
 treatment, 187  
 from trauma, 620  
 hemorrhagic, 189, 623  
 humoral theories, 622  
 insulin, during anesthesia, 660  
 irreversible, 186  
 local fluid loss theory, 620  
 primary, 177  
 surgical, 178  
 tent, 625  
 theories, 179, 620  
 treatment, 69, 332, 624  
 Silk's mixture, 255  
 Silverton's solution, 438  
 Sise director, 53  
 Skin, area, 192  
 Skin graft, importance of anesthesia, 507  
 Smoke, noxious, in warfare, 547  
 Smokers, preoperative care, 135  
 Soda lime, 1, 688  
 in gas masks, 550  
 Sodium allyl secondary butyl thiobarbituric acid, 657  
 Sodium amytal, early use, 656  
 Sodium chloride, daily requirement, 65  
 intravenously, early use, 652

use in shock, 188  
value in desert, 252

Sodium cyanide, effect on bone marrow, 312.

Sodium hydroxide, carbon dioxide absorption with, 1

Sodium isoamyl-ethyl-barbiturate, 657

Soldiers, anesthesia, 252  
postanesthetic sequelae, 376

Somnifen, 655

Sorbitol, 44

Specific gravity, blood, plasma, urine, 66

Spinal cord, after alcohol injection, 668  
damage by anesthetic drug, 167, 444  
gas bubbles in, 269

Spinal fluid, concentrations of procaine in, 159  
specific gravity of, 279  
withdrawal after spinal anesthesia, 526  
withdrawal during spinal anesthesia, 59

Spinocaine, 523

Spinal puncture, 22

Static electricity, report of committee, 85

Sterilizing solution, for intratracheal tube, 510

Sternum, injection of fluid into, 307

Sternutator gases, 547

Stokes' law, 181

Stomach contents, role in atelectasis, 138

Stomach tube, through face mask, 460

Stovaine, 22

Strontium, carbon dioxide absorption with, 1

Strophanthin K, 44

Strychnine, action with monocaine, 408  
after spinal anesthesia, 276

Subarachnoid space, absorption from, 162

Sulfonamides, effect on action of barbiturates, 46

Suprarenal cortical extracts, 185, 188

Syringe, Anel's eye, early use, 18  
Australian army issue, 381  
early use of, 18

Tachycardia, cyclopropane-epinephrine, prevention, 259  
effect of carbon dioxide excess, 6

Tear gas, 546

Technic, alcohol intraspinally, 669  
ammonium sulfate intraspinally, 670  
blood specific gravity, 67  
bronchography, 61  
continuous spinal anesthesia, 53, 639

Crafoord's local anesthesia, 319  
intubation, 199, 320, 508

spinal anesthesia, 630  
with monocaine formate, 517  
with nupercaine, 437

splanchnic block, 393, 395  
sternal puncture, 309

Temperature, body, effect of drugs, 28  
role in postanesthetic complication, 201  
in carbon dioxide absorbers, 1, 4

Thiamin, action on radial paralysis, 46

Thorax, operations on, blood studies in, 193  
spinal anesthesia for, 272  
value of atropine, 75  
tracheobronchial aspiration, 202  
x-ray of, 61

Throat, trauma of intubation, 510

Thrombosis, role in shock, 624

Thyrotoxicosis, atelectasis following, 137

Tibia, injection of fluids into, 308

Tilton General Hospital, instructions in anesthesia, 433

Tobacco, use of, effect on respiratory sequelae, 386

Tongue, relation to anesthesia, 195

Tonsillectomy, dangers of, 195, 197

Trachea, relation to anesthesia, 195

Tracheal tug, 460

Tracheo-bronchial aspiration, 202

Tracheotomy tube, anesthesia through, 197

Traction reflexes, effect of atropine, 75

Transportation, war casualties, 249, 252

Trauma, shock after, 620

Tribromethyl alcohol, acidosis, 429  
for pneumonectomy, 318  
hypnotic value, 557  
intravenously, 655

Tropacocaine, 22

Trypan blue test, 398

Tutocaine hydrochloride, local anesthetic characteristics, 674

Twilight sleep, 287

Urine, indications for fluid therapy, 65

Vagus nerve, effect of drugs, 74

Vasoconstriction, 616  
effect of monocaine, 403

Venipuncture, aid to, 582

Veronal (see barbital)

Vesicant gas, 547

Vital capacity, role in postoperative complications, 201

Vitamin C, after barbiturate overdose, 44

Vocal cords, paralysis, relation to anesthesia, 197

spasm, effect of atropine, 74

Voice, effect of helium, 269

Vomiting, during spinal anesthesia, 642  
fluid treatment following, 191  
postoperative, incidence in army, 387

Wartime,  
anesthesia, 379  
in military hospital, 247, 379  
in navy, 459  
pentothal, 657  
teaching, 433  
noxious gases, 546  
shock therapy, 624  
transportation of patients, 249  
wounds, 249

White cells, of stored blood, 331  
Windows, transparent, for study of blood vessels, 146  
Wine, intravenously, 650  
Wounds,  
healing, value of fluid therapy, 192  
wartime, 249

Xylene bromobenzene, 67

## INDEX OF AUTHORS AND TITLES OF ORIGINAL ARTICLES

PAGE	PAGE		
Adriani, John: Efficiency of mixtures of barium and calcium hydroxides in the absorption of carbon dioxide in rebreathing appliances	1	Bueding, Ernest: Insulin shock during sodium pentothal and cyclopropane anesthesia	660
Inorganic gases in anesthesiology	560	Burdick, D. L.: Monocaine formate: its application in spinal anesthesia	514
Allen, C. R.: Cardiac arrhythmias which occur spontaneously in cats during cyclopropane anesthesia	530	Burford, G. E.: Tolerance of humans for procaine injected into the subarachnoid space	159
Prevention of cyclopropane-epinephrine tachycardia by diethyl ether	259	Calesnick, B.: Essential characteristics of local anesthetics	673
Response of the digitalized heart to cyclopropane and epinephrine	644	Cook, Evelyn: Rationale of oxygen therapy during fever therapy	123
Apgar, Virginia: Combined use of ephedrine and epinephrine in spinal anesthesia	49	Cullen, S. C.: Rationale of oxygen therapy during fever therapy	123
Continuous spinal anesthesia	522	Drew, C. R.: Early recognition and treatment of shock	176
Treatment of untoward effects from nitrogen	265	Editorial: Anaesthesia and golf: an analogy	683
Aumann, K. W.: Studies on the mechanism of intestinal inhibition by cyclopropane anesthesia	303	Antianaleptic	83
Bates, William: Intractable pain	663	Breathing in anesthesia	204
Batten, D. H.: Efficiency of mixtures of barium and calcium hydroxides in the absorption of carbon dioxide in rebreathing appliances	1	Presidential address	448
Inorganic gases in anesthesiology	560	Scientific discussions	336
Beans, R. B.: Recent advances in transfusion therapy	331	Shortage of anesthetists?	576
Beutner, R.: Essential characteristics of local anesthetics	673	Enos, R. W.: Studies in the mechanism of intestinal inhibition by cyclopropane anesthesia	303
Bourne, Wesley: (Editorial) Breathing in anesthesia	204	Essex, H. E.: Effect of certain general anesthetic agents on the small blood vessels in the ear of the rabbit	146
(Editorial) Presidential address	448	Evans, W. E., Jr.: Anesthesia. VII. Studies with cyclopropyl ethyl ether (cypreth ether) in man	414
Spinal anesthesia for thoracic surgery	272	Eversole, U. H.: Technique of spinal anesthesia	630
Brace, D. E.: Atelectasis	131	Fine, J. H.: Fluid therapy before and after operation	65
Bradley, S. E.: Circulatory adjustments during spinal anesthesia in normal man with special reference to the autonomy of arteriolar tone	421		

Flagg, P. J.:  
 (Editorial) Scientific discussions ..... 336

Foregger, R.:  
 Cardiac arrhythmias which occur spontaneously in cats during cyclopropane anesthesia ..... 530

Forman, S. E.:  
 Anesthesia. VII. Studies with cyclopropyl ethyl ether (cypreth ether) in man ..... 414

Friend, A. W.:  
 Gases encountered in warfare ..... 546

Gordon, R. A.:  
 Problems of anaesthesia in plastic surgery ..... 507

Green, H. D.:  
 Shock ..... 611

Griffith, H. R.:  
 Anesthesia service for small hospitals ..... 553  
 Use of curare in general anesthesia ..... 418

Gunn, Grace:  
 Anesthesia for pneumonectomy in man ..... 314

Gwathmey, J. T.:  
 Story of oil-ether colonic anesthesia ..... 171

Hale, D. E.:  
 Splanchnic anesthesia in gastric surgery ..... 392

Hathaway, H. R.:  
 Acid-base balance during cyclopropane anesthesia ..... 369

Haugen, F. P.:  
 Serial spinal anesthesia ..... 52

Hawk, M. H.:  
 Effects of morphine, atropine and scopolamine on human subjects ..... 24

Haynes, W. G.:  
 Cervical arachnoiditis occurring after spinal anesthesia ..... 444

Hoff, H. E.:  
 Pharmacological actions of parenterally administered magnesium salts. A review ..... 323

Howell, G. R.:  
 Spinal anesthesia for thoracic surgery ..... 272

Iglauer, Samuel:  
 Relation of respiratory passages to anesthesia ..... 195

Inglis, A. N.:  
 Spinal anesthesia for thoracic surgery ..... 272

Johnson, G. Enid:  
 Use of curare in general anesthesia ..... 418

Judovitch, B. D.:  
 Intractable pain ..... 663

Karstens, A. I.:  
 Studies on the mechanism of intestinal inhibition by cyclopropane anesthesia ..... 303

Kaye, Geoffrey:  
 Impressions of anaesthesia in a military base hospital ..... 247

Impressions of anaesthesia in a military base hospital (continued) ..... 379

Keys, T. E.:  
 Development of anesthesia (continued) ..... 11, 282, 650

Kilborn, M. G.:  
 Anesthesia. VII. Studies with cyclopropyl ethyl ether (cypreth ether) in man ..... 414

Krantz, J. C., Jr.:  
 Anesthesia. VII. Studies with cyclopropyl ethyl ether (cypreth ether) in man ..... 414

Lahey, F. H.:  
 Tribute to Lincoln F. Sise ..... 686

Lapinsohn, L.:  
 Essential characteristics of local anesthetics ..... 673

Leigh, M. D.:  
 Acidosis during clinical anesthesia ..... 429  
 Spinal anesthesia for thoracic surgery ..... 272

Lundy, J. S.:  
 Effect of certain general anesthetic agents on the small blood vessels in the ear of the rabbit ..... 146  
 Local and regional anesthesia ..... 540

Martin, S. J.:  
 Instruction in anesthesiology at Tilton General Hospital ..... 433

McAllister, F. F.:  
 Neurogenic control of the circulation of dogs under ether anesthesia ..... 491

Meek, W. J.:  
 Cardiac arrhythmias which occur spontaneously in cats during cyclopropane anesthesia ..... 530  
 Prevention of cyclopropane-epinephrine tachycardia by diethyl ether ..... 259  
 Response of the digitalized heart to cyclopropane and epinephrine ..... 644

Menaker, J. G.:  
 Role of picrotoxin in the treatment of acute barbiturate poisoning ..... 37

Neff, William:  
 Anesthesia for pneumonectomy in man ..... 314

Pallin, I. M.:  
 Case of massive atelectasis during anesthesia ..... 79

Papper, E. M.:  
 Bone marrow route for injecting fluids and drugs into the general circulation ..... 307  
 Circulatory adjustments during spinal anesthesia in normal man with special reference to the autonomy of arteriolar tone ..... 421  
 Insulin shock during sodium pentothal and cyclopropane anesthesia ..... 660

Peterson, M. C.:	
Case of massive atelectasis during anesthesia.....	79
Phelps, M. L.:	
Role of the alkaloids of the belladonna plants in clinical anesthesia.....	71
Phillips, Wilson:	
Anesthesia for pneumonectomy in man. 314	
Richards, R. K.:	
Role of picrotoxin in the treatment of acute barbiturate poisoning.....	37
Rochberg, Samuel:	
Combined use of ephedrine and epinephrine in spinal anesthesia.....	49
Root, W. S.:	
Neurogenic control of the circulation of dogs under ether anesthesia.....	491
Rovestine, E. A.:	
Circulatory adjustments during spinal anesthesia in normal man with special reference to the autonomy of arteriolar tone.....	421
Insulin shock during sodium pentothal and cyclopropane anesthesia.....	660
Monocaine formate: its application in spinal anesthesia.....	514
Ruth, H. S.:	
Serial spinal anesthesia.....	52
Schamp, H. M.:	
Pharmacological effects of monocaine hydrochloride.....	295
Pharmacological effects of monocaine hydrochloride (continued).....	398
Schamp, J. R.:	
Pharmacological effects of monocaine hydrochloride.....	295
Pharmacological effects of monocaine hydrochloride (continued).....	398
Schuhmacher, L. F., Jr.:	
Technics of spinal anesthesia.....	630
Seevers, M. H.:	
Acid-base balance during cyclopropane anesthesia.....	369
Seldon, T. H.:	
Effect of certain general anesthetic agents on the small blood vessels in the ear of the rabbit.....	146
Local and regional anesthesia.....	540
Shaar, C. M.:	
Splanchnic anesthesia in gastric surgery 392	
Shideman, F. E.:	
Acid-base balance during cyclopropane anesthesia.....	369
Slocum, H. C.:	
Apparatus for the automatic recording of diastolic and systolic blood pressure in clinical practice.....	141
Smith, F. A.:	
Cervical arachnoiditis occurring after spinal anesthesia.....	444
Smith, P. K.:	
Pharmacological actions of parenterally administered magnesium salts. A review.....	323
Sommerfield, R. B.:	
Anesthetist's interest in lipiodo-bronchography.....	61
Stern, Marvin:	
Insulin shock during sodium pentothal and cyclopropane anesthesia.....	660
Stormont, R. T.:	
Acid-base balance during cyclopropane anesthesia.....	369
Stutzman, J. W.:	
Cardiac arrhythmias which occur spontaneously in cats during cyclopropane anesthesia.....	530
Prevention of cyclopropane-epinephrine tachycardia by diethyl ether.....	259
Response of the digitalized heart to cyclopropane and epinephrine.....	644
Tainter, M. L.:	
Pharmacological effects of monocaine hydrochloride.....	295
Pharmacological effects of monocaine hydrochloride (continued).....	398
Taylor, I. B.:	
Serial spinal anesthesia.....	52
Tovell, R. M.:	
Gases encountered in warfare.....	546
Wangeman, C. P.:	
Effects of morphine, atropine and scopolamine on human subjects.....	24
Weir, E. F.:	
Rationale of oxygen therapy during fever therapy.....	123
Wilkinson, F. A. H.:	
Nupercaine spinal anesthesia for abdomino-perineal resection of the rectum: a new technic.....	437
Winkler, A. W.:	
Pharmacological actions of parenterally administered magnesium salts. A review.....	323
Youmans, W. B.:	
Studies in the mechanism of intestinal inhibition by cyclopropane anesthesia..	303

## INDEX OF AUTHORS AND TITLES OF ABSTRACTS

PAGE	PAGE
Aagaard, G. N.:	Bancroft, F. W., Fuller, A. G. and Rugiero, W. F.:
Transfusion reactions and erythroblastosis foetalis caused by the Rh factor..	Improved methods in extremity amputations for diabetic gangrene.....
Acuff, Herbert:	Batten, D. H.:
Role of the liver in the surgical risk....	Hypoxia—the hazard of the operating room.....
Adams, H. D., and Hand, L. V.:	Beecher, H. K. and Adams, Ralph:
Twenty minute cardiac arrest with complete recovery: principles of prevention and treatment.....	Ether anesthesia in the presence of pulmonary tuberculosis.....
Adams, R. C.:	Bicker's, William:
Shock, blood transfusion and supportive treatment.....	Procaine hydrochloride in obstetrics....
Adams, R. C., and Lundy, J. S.:	Blalock, Alfred and Mason, M. F.:
Anesthesia in cases of poor surgical risk: some suggestions for decreasing the risk. ....	Comparison of the effects of heat and those of cold in the prevention and treatment of shock.....
Alexander, F. A. D. and Studebaker, Glenn:	Blicke, F. F. and Castro, E. R.:
Anesthesia equipment station.....	1-Alkyl 2-dialkylaminoalkyl 4-amino-phthalates as local anesthetics.....
Allen, F. M.:	Blicke, F. F. and Otsuki, Chieko:
Reduced temperatures in surgery. I. Surgery of limbs.....	1-Dialkylaminoalkyl 2-alkyl 3-amino-phthalates as local anesthetics.....
Allen, J. G., Kable, Vera and Livingstone, H.:	Bourne, Wesley:
Effect of anesthetic drugs on prothrombin concentrations in experimental animals.....	Anaesthesia in war circumstances.....
Altschule, M. D., Gilligan, D. R. and Zamcheck, N.:	Breslow, Lawrence and Poncher, H. G.:
Effects on the cardiovascular system of fluids administered intravenously in man. IV. The lung volume and pulmonary dynamics.....	Use of seconal (sodium propyl-methylcarbonyl allyl barbiturate) in pediatric procedures.....
Altschule, M. D. and Zamcheck, Norman:	Buchstein, H. F.:
Significance of changes in subdivisions of the lung volume in the Trendelenburg position.....	Acute spinal epidural abscess: report of a case.....
Anderson, B. M. and Essex, H. E.:	Burford, G. E. and Calvin, W. H.:
Studies on barbiturates, especially their cyclic disappearance from and reappearance in the blood following intravenous injection.....	Observations on continuous spinal anesthesia.....
Andrews, A. H., Jr.:	Burgen, A. S. and Schofield, E.:
Functional examination of respiration in obstructive diseases.....	Dental anaesthesia and oxygen lack....
Ansbro, F. P. and Pico, L. J.:	Burstein, C. L. and Rovenstine, E. A.:
Continuous spinal anesthesia: report of one hundred cases in which this method was employed.....	Toxicity of intravenous paraaldehyde....
Arnold, L. E.:	Butler, T. C.:
Analgesia in obstetrics: an analysis of 500 consecutive cases.....	Delay in onset of intravenously injected anesthetics.....
Arnott, G. M. and Young, W. F.:	Campbell, S. M. and Gordon, R. A.:
Postoperative administration of fluids to children.....	Post-anaesthetic complications in a military hospital.....
Atlas, L. N.:	Carraway, C. N. and Davison, T. C.:
Further observations on the etiology of vasomotor disturbances following peripheral nerve section.....	Pentothal sodium oxygen anesthesia in thyroid surgery.....
	Cassels, W. H.:
	Cessation of respiratory exchange.....
	Cowan, S. L., Scott, R. D. and Suffolk, S. F.:
	Oxford vaporiser No. 2.....
	Craig, P. E.:
	Cobra venom analgesia in surgery.....
	Crane, R. M. and Whitacre, R. J.:
	Cyclopropane anesthesia.....

Crowley, R. T.:  
Reflex changes in respiration induced by distention of the small intestine ..... 694

Cullen, S. C. and Skewis, J. E.:  
Prophylactic and therapeutic use of oxygen in the surgical patient ..... 246

Davies, R. M.:  
Some factors affecting the incidence of post-anaesthetic vomiting ..... 343

Draper, W. B. and Whitehead, R. W.:  
Chances of resuscitation after an overdose of ether, divinyl ether and chloroform ..... 609

Dreisbach, R. and Snyder, F. F.:  
Effect of scopolamine on the fetus ..... 461

Eckstein, A. W.:  
Surgical treatment of peptic ulcer (Fiske Fund prize essay No. LXX) ..... 487

Edwards, W. B. and Hingson, R. A.:  
Continuous caudal anaesthesia in obstetrics ..... 718

Elkin, D. C.:  
Special field of cardiac surgery ..... 235

Epstein, H. G., Macintosh, R. R. and Mendelssohn, K.:  
Oxford vaporiser No. 1 ..... 113

Epstein, H. G. and Pask, E. A.:  
Performances of the Oxford vaporisers with ether ..... 115

Evans, J. A.:  
Combined use of heparin and dicoumarin (3,3' methylenebis, 4-hydroxycoumarin) in thrombophlebitis and pulmonary embolism (preliminary report) ..... 711

Eversole, U. H.:  
Anesthesia for surgery about the head ..... 346

Fabing, H. D.:  
Induction of metrazol convulsions with the patient under nitrous oxide anaesthesia ..... 466

Ferguson, L. K. and La Towsky, L. W.:  
Study of the immediate postoperative complications and mortality in certain general surgical operations. Analysis of 662 cases at the Philadelphia General Hospital, 1936 to 1939 ..... 104

Fine, Jacob and Sears, J. B.:  
Prophylaxis of pulmonary embolism by division of the femoral vein ..... 461

Fischer, T. E.:  
General anesthesia in the treatment of maxillo-facial cases ..... 361

Fredericks, Lillian E.:  
Prevention of shock in spinal anesthesia ..... 693

Gardner, W. J.:  
Injection of procaine into brain to locate speech area in left handed persons ..... 463

Gillespie, N. A.:  
Surgeon and anesthetist ..... 597

Gould, R. B.:  
Cyclopropane anaesthesia ..... 468

Greene, B. A.:  
Hazards of fire and explosion of anaesthetic agents. II. In the presence of the cautery ..... 477

Griffin, E. L. and Benson, R. C.:  
Gynecologic surgery under local anesthesia ..... 349

Griffith, H. R. and Goodall, J. R.:  
Analgesia and anaesthesia in obstetrics ..... 227

Gruber, C. M.:  
Barbiturates and the thiobarbiturates: some differences in their actions when administered to human beings and to experimental animals ..... 239

Guernsey, Gretchen and Lorhan, P. H.:  
Effect of anesthetics upon the liver ..... 219

Gurney, Ramsdell:  
Some recent contributions to the physiology of respiration ..... 344

Handley, Carroll A. and Abreu, B. E.:  
Antagonism of benzedrine to the central depressant effects of morphine ..... 222

Hanley, B. J.:  
Obstetrical analgesia in private patients ..... 353

Harbord, R. P.:  
Anaesthesia for air-raid casualties ..... 599

Harkins, H. N.:  
Treatment of shock in wartime ..... 99

Haugen, F. P.:  
General anesthesia for jaw casualties ..... 97

Hayman, I. R. and Wood, P. M.:  
Abducens nerve (VI) paralysis following spinal anesthesia ..... 696

Heard, K. M.:  
Avertin-nitrous oxide anaesthesia in thyroideectomy ..... 233

Heineken, T. S. and Roseman, H. I.:  
Use of pentothal sodium intravenous anesthesia for gastroscopic examination ..... 471

Hewer, C. L.:  
Trichlorethylene as an inhalation anesthetic ..... 229

Hollis, K. E.:  
Indications and contraindications to spinal anesthesia ..... 697

Johnston, Florence D.:  
Some problems in anesthesia ..... 244

Kaltreider, N. L., Meneely, G. R. and Allen, J. R.:  
Effect of epinephrine on the volume of the blood ..... 702

Kasin, Edwin and Parker, Sam:  
Momentary death and choreoathetosis following nitrous oxide anesthesia with recovery ..... 466

Keating, F. R., Jr., Power, M. H. and Rynearson, E. H.: Desoxycorticosterone acetate: an appraisal of the value of its preoperative administration to surgical patients..... 480

Kellogg, J. F., Phillips, R. B. and Sahler, LeRoy: Cyclopropane anesthesia in military surgery..... 102

Koller, Theodore: Clinical significance of intravenous anesthesia in gynecology..... 226

Lahmann, A. H. and Mietus, A. C.: Caudal anesthesia: its use in obstetrics. 474

Lee, W. E., King, O. C. and Farrell, H. L.: Controlled fractional spinal anesthesia. 473

Leffmon, W. T. and Paschal, G. W., Jr.: Continuous—serial, fractional, controllable, intermittent—spinal anesthesia: with observations on 1000 cases..... 600

Levy, R. L. and Moore, R. L.: Paravertebral sympathetic block with alcohol for the relief of cardiac pain; report of forty-five cases..... 96

Lindskog, G. E. and Spicer, A. D.: Lung volume under surgical anesthesia: the effect of avertin on the subtidal air. 117

Long, Carroll H., Mickal, Abe and Ochsner, Alton: Use of pentothal sodium for the induction of anesthesia in thyrotoxicosis..... 365

Long, C. H. and Ochsner, Alton: Intravenous pentothal sodium anesthesia: a review of the literature..... 590

Lopez, Vara: Spinal anesthesia in infancy..... 122

Lovelace, W. R. II: Airplane transportation of patients..... 225

Lund, C. J.: Relation of inhalation analgesia and anesthesia to asphyxiation neonatorum.... 594

Lyford, John, III: Postoperative infections of the respiratory tract in relation to inhalation and spinal anesthesia: a study of six hundred and thirty-one cases..... 467

Preoperative and postoperative infection of the respiratory tract in relation to inhalation and spinal anesthesia..... 467

Lyford, John, III, Berger, Olive L. and Shumacker, H. B., Jr.: Analysis of deaths in the operating rooms of the Johns Hopkins Hospital with reference to those occurring under general anesthesia and spinal anesthesia... 705

Macintosh, R. R. and Mendelsohn, K.: Quantitative administration of ether vapour..... 112

Macintosh, R. R. and Pask, E. A.: Improved apparatus for continuous intravenous anesthesia..... 117

Madding, G. F. and Fricke, R. E.: Secondary or postoperative parotitis... 468

Mahorner, Howard: Sympathetic nerve blocks in rehabilitation of the injured extremity: report of cases; and a discussion of causalgia.... 697

Martin, J. D., Jr. and Robertson, Roy: Blood studies during anesthesia: reference to infections and non-infections... 486

McCall, J. W. and Freeman, M. S.: Postoperative atelectasis: presentation of four cases..... 704

McCarthy, K. C.: English medicine and the war..... 360

Relationship of nitrous oxide anaesthesia and anoxia..... 231

McIntyre, A. R., Bennett, A. L. and Wagner, J. C.: Nerve-modulus for anesthetics..... 481

McLaughlin, C. W., Jr.: Postoperative gangrene of the finger following digital nerve block anesthesia: report of a case..... 488

Miley, George: Knott technic of ultraviolet blood irradiation in acute pyogenic infections: a study of 103 cases with clinical observations on the effects of a new therapeutic agent..... 485

Monroe, S. E. and Benjamin, E. L.: Convulsions associated with general anesthesia: 'Ether convulsions': report of a case with findings at autopsy..... 107

Moore, R. M. and Wingo, W. J.: Blood level of magnesium ion in relation to lethal, anesthetic, analgesic and antitetic effects..... 485

Moorhead, J. J.: Surgical experiences at Pearl Harbor... 585

Mousel, L. H. and Lundy, J. S.: Some pulmonary problems related to anesthesia..... 110

Mueller, Lillian B.: Simple device for administering intravenous barbiturate..... 472

Mushin, W. W.: Heavy percamine spinal anaesthesia..... 583

Myers, R. D.: Injection anesthesia..... 608

Nelson, E. E.: Action of the opium alkaloids on the gastro-intestinal tract..... 223

Newman, Samuel: Convulsions associated with general anesthesia: report of three cases..... 352

Novak, Milan:  
Use of sulfonamide derivatives: as a solution to the problem of bacterial contamination in stored plasma ..... 484

Obermann, C. F.:  
Use and abuse of sedatives ..... 240

Owens, L. B., Wright, Jackson and Brown, Edna:  
Efficacy of intravenous sodium bicarbonate therapy in the treatment of diabetic ketosis ..... 367

Pelner, Louis:  
Gangrene of the toe, following local anesthesia with procaine-epinephrine solution; a clinical and experimental study ..... 487  
Value of the "head-up" position for an infant ..... 368

Pender, J. W. and Lundy, J. S.:  
Anesthesia in war surgery ..... 586

Phillips, R. B.:  
Wartime anesthesia ..... 359

Phillips, W. H. and Maxmen, H. A.:  
Local anesthesia in operative dentistry for children ..... 230

Potter, Robert, Livingstone, Huberta, Andrews, Edmund and Light, Geraldine:  
Blood ether levels in surgical anesthesia ..... 354

Ray, B. S. and Stewart, H. J.:  
Observations and surgical aspects of the carotid sinus reflex in man ..... 703

Read, J. M. and Brown, J. S.:  
Note upon more accurate measurement of diastolic blood pressure ..... 717

Rhoads, Jonathan and Lee, W. E.:  
Advantages of combining local infiltration anesthesia with controlled fractional spinal anesthesia in substandard surgical risks ..... 364

Richards, R. K., Keuter, K. and Klatt, T. J.:  
Effect of vitamin C deficiency on action of different types of barbiturates ..... 365

Rieser, Charles:  
Spinal anesthesia and injury to the nervous mechanism of micturition ..... 105

Ritter, J. S. and Kramer, S. E.:  
Modern urologic pharmacology ..... 351

Root, W. S. and McAllister, F. F.:  
Circulatory responses of chronic spinal dogs to ether anesthesia ..... 116

Roth, F. and Schumacher, J.:  
Reasons for the late febrile reactions following blood transfusions ..... 226

Rovenstine, E. A. and Papper, E. M.:  
Packaging ether for anesthesia ..... 478

Rovenstine, E. A. and Wertheim, H. M.:  
Present status of therapeutic regional analgesia ..... 474  
Therapeutic nerve block ..... 348

Ruigh, W. L.:  
Analysis of divinyl ether in blood ..... 473

Sahler, S. L., Kellogg, J. F. and Phillips, R. B.:  
Cyclopropane anesthesia at the Rochester General Hospital: review of 7,120 cases ..... 593

Santy, A. C.:  
Response of blood donors to iron ..... 221

Searles, P. W.:  
Intravenous anesthesia ..... 470

Seavers, M. H.:  
Drugs in intractable pain ..... 483

Seibert, C. W.:  
Practical application of obstetric analgesia ..... 362

Shoor, Mervyn:  
Paraldehyde poisoning: report of a fatality ..... 350

Shumacker, H. B., Jr.:  
Local anesthetic reactions ..... 104

Smith, C. H.:  
Regional anesthesia for high ligation of the internal saphenous vein ..... 366

Snyder, F. F. and Kha Ti Lim:  
Effect of morphine on labor ..... 367

Stedge, R. L. and Henstridge, F. St. P.:  
Use of prolonged local anesthesia for delivery: a preliminary report ..... 475

Tainter, M. L. and Thordson, A. H.:  
Suitability of butyn for injection anesthesia in oral surgery ..... 362

Thompson, S. A. and Birnbaum, C. L.:  
Phenomenon of asphyxial resuscitation. I. Resuscitation with inert (asphyxiating) gas in advanced asphyxia ..... 701

Thorson, J. A.:  
Intratracheal anesthesia in head operations ..... 345

Tovell, R. M. and Edmondson, R. E.:  
Modern concepts of cyclopropane anesthesia ..... 469

Tovell, R. M. and Hickcox, C. B.:  
Present status of cyclopropane ..... 479

Tynes, A. L., Nichol, W. W. and Wiggin, S. C.:  
Anesthesia for military needs ..... 358

Uihlein, Alfred and Kendrick, D. B., Jr.:  
Determinations of the blood platelets during traumatic shock: an experimental study ..... 222

Walker, R. H. and Teague, F. B.:  
Metrazol in barbiturate poisoning—a  
case report ..... 482

Waters, E. G.:  
Regional anesthesia: its use in obstetrics  
and gynecology ..... 598

Weinstein, M. L. and Adams, E. L.:  
Further observations on the use of rectal  
sodium pentothal ..... 122

White, J. C., Verlot, M., Selverstone, B.  
and Beecher, H. K.:  
Changes in brain volume during anes-  
thesia: the effects of anoxia and hyper-  
capnia ..... 481

Whitehead, J. M.:  
Anesthetic agents and anesthetic failures 478

Wiggers, C. J.:  
Applicability of experimental results to  
the shock problem in man ..... 242

Williamson, C. S.:  
Laboratory aids of value in the diagnosis  
of traumatic shock and internal hemor-  
rhage with a brief reference to the use of  
blood plasma as a therapeutic agent ..... 221

Windle, W. F. and Becker, R. F.:  
Role of carbon dioxide in resuscitation at  
birth after asphyxia and after nembutal  
anesthesia: an experimental study in the  
cat and guinea pig ..... 356

Wolff, E. C. and Stewart, H. B.:  
Clinical conclusions on high spinal anes-  
thesia ..... 584

Woodson, F. E.:  
Outline for teaching anesthesia to physi-  
cians of small communities ..... 220

## BOOKS REVIEWED

PAGE	PAGE
Physicians' reference book of emergency medical service. New York, E. R. Squibb and Sons, 1942, 268 pp. with illustrations [no price listed] ..... 578	
Bancroft, Frederic W. (Editor): Operative surgery—including anesthesia, pre- and postoperative therapy, principles of sur- gical technic, blood transfusion and ab- dominal surgery. New York, D. Apple- ton-Century Co., Inc., 1941, 1102 pp. with 514 illustrations. Price, \$10.00. 338	
Gillespie, Noel A.: Endotracheal anes- thesia. Madison, The University of Wisconsin Press, 1941, 187 pp. with 45 illustrations. Price, \$4.00. 211	
Goldman, Victor: <i>Aids to anaesthesia</i> . London, Balliere, Tindall and Cox, 1941, 235 pp. with 58 illustrations. Price, \$1.75. 578	
Gregg, Alan: <i>The furtherance of medical research</i> . New Haven, Yale University Press, 1941, 129 pp. Price, cloth, \$2.00. 453	
White, James C. and Smithwick, Reginald: <i>The autonomic nervous system</i> . New York, The Macmillan Company, 1941, 469 pp. Price, \$6.75. 211	
Woolmer, Ronald: <i>Anaesthetics afloat</i> . London, H. K. Lewis and Company, Ltd., 1942, 120 pp. with 18 illustrations. Price, 6/-net. 340	

## TABLES, ILLUSTRATIONS, ETC.

PAGE	PAGE
Table—Barium lime and soda lime; carbon dioxide in volumes percent in outgoing air ..... 4	Photograph—Carl Koller. 20
Table—Barium lime and soda lime; tem- peratures of reacting absorbents ..... 4	Photograph—J. Leonard Corning. 21
Table—Barium lime; percentage carbon dioxide in breathing bag ..... 7	Graphs—Effects of morphine sulphate on the pulse, etc. 25
Anesthesia study record; effects of carbon dioxide accumulation ..... 7	Tracings—Effects on morphine sulphate on the respiration ..... 27
Graph—Barium lime; temperature record- ings ..... 8	Graphs—Effects of atropine ..... 29
Graph—Soda lime; temperature recordings ..... 8	Graphs—Effects of scopolamine hydro- bromide ..... 30
Photograph—John Snow ..... 9	Graphs—Effects of morphine and atropine ..... 31
Photograph—Sir James Young Simpson. 12	Graphs—Effects of morphine sulphate and scopolamine hydrobromide ..... 32
Photograph—Queen Victoria ..... 13	Graph—Comparison of effect of drugs on pulse rate ..... 33
Reproduction of title page—first meeting American Medical Association ..... 14	Graph—Comparison of effect of drugs on minute volume ..... 34
Photograph—Friedrich Wilhelm Sertürner 16	Graph—Comparison of effect of drugs on oxygen consumption ..... 35
18	

Table—Picrotoxin in acute barbiturate poisoning . . . . .	39	Drawing—Absorption from the spinal subarachnoid space . . . . .	163
Anesthesia study record; effect of intramuscular injection of epinephrine . . . . .	50	Drawing—Perivascular space and extension into brain substance . . . . .	165
Anesthesia study record; lengthy operative procedure with small dose of procaine . . . . .	55	Chart—Controlled fluid therapy . . . . .	180
Anesthesia study record; operative procedure in aged patient with small dose of procaine . . . . .	56	Table—Effect of fluid therapy . . . . .	183
Anesthesia study record; lengthy operative procedure with small dose of procaine . . . . .	57	Chart—Hematocrit-protein patterns . . . . .	184
Anesthesia study record; upper abdominal operation under spinal anesthesia . . . . .	58	Tables—Effect of fluid therapy . . . . .	185, 189
Table—Types of operations using serial spinal anesthesia . . . . .	58	Drawing—Retropharyngeal abscess . . . . .	190, 192
Table—Summary of dosages of procaine for serial spinal anesthesia . . . . .	59	Photograph—Larynx viewed from behind . . . . .	196
Chart—Dehydration accompanying intestinal obstruction . . . . .	60	Roentgenogram—Head and neck showing laryngoscope in place . . . . .	200
Chart—Acute blood loss and shock . . . . .	61	Pictures—Birthplace of William Thomas Green Morton and marker . . . . .	213
Chart—Falling total protein and blood dilution . . . . .	62	Drawing—Ether dripper for the to and fro absorber . . . . .	215
Anesthesia study record; massive atelectasis during anesthesia . . . . .	63	Tables—Protection from cyclopropane-epinephrine tachycardia . . . . .	260, 262
Picture—Equipment used in making bulk solution of pentothal sodium . . . . .	64	Table—Dosage and time tables for nupercaine spinal analgesia . . . . .	263
Picture—London Hospital mouth prop . . . . .	65	Tracings—Effect of histamine, ephedrine and pituitary extract on blood pressure and respirations . . . . .	273
Graph—Effect of oxygen therapy on fever . . . . .	66	Anesthesia study record; effect of adequate premedication on spinal analgesia . . . . .	277
Graph—Effect of oxygen therapy on blood . . . . .	67	Anesthesia study record; effect of analgesics during spinal analgesia . . . . .	278
Graphs—Effect of oxygen therapy on blood pH and on blood CO <sub>2</sub> . . . . .	68	Table—Spinal anesthesia in thoracic surgery . . . . .	279
Graph—Effect of oxygen therapy on oxygen tension . . . . .	69	Photograph—Rudolph Matas . . . . .	283
Tables—Postoperative respiratory complications . . . . .	70	Photograph—George W. Crile . . . . .	284
Picture—Apparatus for automatic recording of blood pressure . . . . .	71	Reproduction of title page—Pirogoff's book . . . . .	285
Drawing—Working principles of apparatus for automatic recording of blood pressure . . . . .	72	Photograph—James T. Gwathmey . . . . .	286
Graph—Automatic recording of blood pressure . . . . .	73	Photograph—Arno B. Luckhardt . . . . .	289
Photomicrograph—Effect of pentothal sodium on capillary . . . . .	74	Photograph—Chauncey D. Leake . . . . .	291
Graphs—Effect of pentothal and of cyclopropane on capillaries and blood pressure . . . . .	75	Photograph—Ralph M. Waters . . . . .	292
Photomicrographs—Effect of cyclopropane and oxygen on capillary and on arteriole . . . . .	76	Table—Efficacy of local anesthetics on frogs' skin . . . . .	298
Photomicrographs—Effect of nitrous oxide and oxygen on capillary . . . . .	77	Table—Action of local anesthetics on rabbits' conjunctival sacs . . . . .	299
Graphs—Effect of nitrous oxide and of ethylene on capillaries and blood pressure . . . . .	78	Table—Anesthesia of frogs' sciatic nerve . . . . .	300
Photomicrographs—Effect of ethylene and oxygen on capillary and arteriole . . . . .	79	Table—Anesthesia after infraorbital infiltration in rabbits . . . . .	300
Graph—Effect of drop ether on capillaries and blood pressure . . . . .	80	Table—Anesthetic efficiency of infiltration of rabbit skin . . . . .	301
Photomicrographs—Effect of drop ether on capillary and on arteriole . . . . .	81	Table—Anesthetic efficiency of intradermal injection in human skin . . . . .	301
Anesthesia study record; spinal anesthesia . . . . .	81	Tracings—Intestinal inhibition by cyclopropane anesthesia . . . . .	305

Table—Anesthesia in military base hospital.....	383	Table—Action of F883 during cyclopropane anesthesia.....	537
Table—Anesthetic "risk" in military base hospital.....	384	Table—Cardiac arrhythmias in various depths of cyclopropane anesthesia.....	537
Table—Anesthetics and operations in military base hospital.....	385	Table—Anesthetics in small hospital.....	557
Table—Respiratory sequelae to anesthesia in military base hospital.....	387	Table—Cyclopropane anesthetics and methods in small hospital.....	557
Table—Postoperative vomiting after anesthesia in military base hospital.....	388	Table—Endotracheal anesthetics in small hospital.....	558
Table—Splanchnic anesthesia in gastric surgery.....	396	Table—Upper abdominal operations with cyclopropane in small hospital.....	558
Table—Comparison of acute toxicity of monocaine and procaine.....	401	Sketch—Safety device for evacuation of cylinders at high temperature.....	562
Tracings—Effect of epinephrine and monocaine on blood pressure and respiration.....	404	Sketch—Engraving markings on cylinders for storing compressed gases.....	563
Table—Effect of epinephrine and monocaine on blood pressure.....	405	Table—Color markings of anesthetic gas cylinders.....	564
Tracings—Effect of epinephrine and monocaine on blood pressure.....	406	Table—Dimensions and capacities of cylinders.....	565
Table—Mean fatal doses of monocaine and procaine; effect of artificial respiration.....	407	Sketch—Diagram of gas analysis apparatus (Orsatt type).....	567
Table—Incidence of sloughs after injections of monocaine, procaine and epinephrine.....	408	Sketch—Diagram of gas analysis apparatus (Van Slyke and Neill type).....	568
Table—Effect of epinephrine, monocaine and procaine on absorbability of strychnine.....	409	Record—Consultation record for inhalation therapy.....	579, 580
Table—Hemodynamic effects of spinal anesthesia.....	423	Sketch—Advantages of curved laryngoscope.....	581
Graphs—Circulatory effects of spinal anesthesia.....	425	Graphs—Mechanisms of shock.....	614
.....	426	Chart—Vicious cycle in shock.....	616
Scheme—Present scope of anesthesiology.....	434	Graph—Arterial pressure and blood flow in an extremity.....	617
Table—Schedule of lectures.....	435	Sketch—Syringe, needle and tubing for induction and maintenance of fractional spinal anesthesia.....	632
Sketch—Introducer for continuous spinal anesthesia needle.....	457	Sketch—(a) Sise introducer. (b) Moore introducer.....	632
Picture—Removable introducer for spinal needle.....	458	Sketch—Patient in position for spinal puncture when pontocaine-glucose mixture is to be used.....	633
Graphs—Effect of ether inhalation upon heart rate and blood pressure.....	492, 493	Sketch—(a) Patient in position for injection of pontocaine-glucose mixture for spinal anesthesia. (b) Position for obtaining height of anesthesia.....	634
.....	495, 497	Sketch—Patient in Buie position for rectal operation after spinal anesthetic has been given.....	635
.....	498, 499	Table—Modification of Sise's table for determining dosage of pontocaine.....	636
.....	500, 501	Sketch—Patient in position for spinal puncture when nupercaine is to be used.....	636
.....	503	Sketches—Positions of patient after nupercaine spinal anesthesia.....	637
Picture—Continuous spinal set.....	524	Sketch—Mattress used for fractional spinal anesthesia.....	638
Records—Cystometric readings; bladder dysfunction after continuous spinal anesthesia.....	526	Sketch—Position of patient for perineal operation [fractional spinal anesthesia].....	639
Table—Continuous spinal anesthesia, distribution of cases.....	529	Sketch—Patient in left lateral decubitus position [fractional spinal anesthesia].....	640
Table—Ventricular irregularities during cyclopropane anesthesia.....	532	Sketch—Positions of patient for injection of fractional spinal anesthesia.....	641
Table—Effect of epinephrine during cyclopropane anesthesia.....	533	Table—Effect of ouabain on cardiac automaticity in dogs.....	646
Table—Cardiac arrhythmias during cyclopropane anesthesia and chloroform anesthesia.....	534		
Table—Blood gas studies during cyclopropane anesthesia.....	535		

Tables—Cardiac response to epinephrine in unanesthetized dogs before and after ouabain . . . . .	647, 648
Picture—Sir Christopher Wren . . . . .	651
Picture—Richard Lower . . . . .	652
Title page—First monograph to be published on intravenous anesthesia . . . . .	654
Picture—Emil Fischer . . . . .	656
Table—Blood glucose and pyruvic acid levels following insulin, pentothal and cyclopropane . . . . .	661
Table—Results obtained with eighteen local anesthetics . . . . .	674
Table—Action of strongest local anesthetics after neutralization of their hydrochlorides . . . . .	675
Table—Local anesthetics with an intermediate action . . . . .	675
Table—Time values for disappearance of reflex (local anesthetics) . . . . .	676
Table—Convulsive doses in relation to anesthetic efficiency (local anesthetics) . . . . .	678
Table—Substitution in the acid radical and its influence on (local) anesthetic potency . . . . .	680
Photograph—Thrombus and vein . . . . .	691

## MISCELLANY

	PAGE
Advisory Board of Medical Specialties . . . . .	330
American Board of Anesthesiology, Inc.	
Diplomates, annual dinner . . . . .	294
American Board of Anesthesiology, Inc.—	
notice of coming examination . . . . .	10, 70
	130, 294
No. 5, xxii; No. 6, xxii	
American Board of Anesthesiology. Oral examination announcement . . . . .	No. 5, xxii
American Medical Association, Section on Anesthesiology. Officers elected . . . . .	378
American Medical Association, Section on Anesthesiology. Scientific exhibit . . . . .	313
American Society of Anesthetists. Form for bequest or contribution . . . . .	
	No. 1, xvii; No. 6, xv
American Society of Anesthetists. Library and Museum announcement . . . . .	
	No. 1, xv; No. 2, xiii
	No. 5, xxii; No. 6, xxii
American Society of Anesthetists, Inc.	
Membership blank . . . . .	No. 1, xix; No. 2, xvii
	No. 3, xix; No. 4, xix
	No. 5, xix; No. 6, xix
American Society of Anesthetists. Officers	
	No. 1, xx; No. 2, xviii
	No. 3, xx; No. 4, xx, xxi
	No. 5, xx, xxi; No. 6, xx
American Society of Anesthetists, Inc.	
Program of meetings . . . . .	64, 140
	506, 629
American Society of Anesthetists, Inc. and Ohio Society of Anesthetists. Program of meeting . . . . .	210
Anesthesia Abstracts (Burgess Publishing Co.) . . . . .	158, 335
	436
	No. 5, xviii; No. 6, xviii
Anesthesiology. Binding . . . . .	36, 170
	281, 577
Anesthesiology. Notice for change of address . . . . .	No. 1, xvii
Army. Need for anesthetists . . . . .	649
Case Reports . . . . .	215, 217, 341, 689
Chicago Society of Anesthetists. Officers elected . . . . .	443
Connecticut State Medical Society, Section on Anesthesia. Program of meeting . . . . .	281
Correspondence . . . . .	92, 214
	455, 457
	691
Current Comment . . . . .	85, 213
	341, 455
	579, 688
Medical Literature Copying Service . . . . .	271, 454
New England Society of Anesthesiology.	
Program of meeting . . . . .	539, 682
New York Medical Week, quotation from . . . . .	391
Ohio Society of Anesthetists. Officers elected . . . . .	417
Ohio Society of Anesthetists and American Society of Anesthetists, Inc. Program of meeting . . . . .	210
Punch Card Record System . . . . .	
	No. 1, xiv; No. 2, xii
	No. 3, xiv; No. 4, xiv
	No. 5, xxii; No. 6, xxii
Questions for examinations . . . . .	48, 60
	78, 82
	84, 145
	203, 212
	264, 337
	397, 417
	420, 436
	452, 559
	582, 643
	672, 692
Southern Medical Association, Section on Anesthesia, Election of officers . . . . .	10, 218
Technical Suggestions . . . . .	95, 342, 460
	692
Texas State M. J., quotation from . . . . .	340

